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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,931	02/24/2000	Takayuki Sugawara	9281-3561	5649

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EXAMINER

BAKER, STEPHEN M

ART UNIT

PAPER NUMBER

2133

DATE MAILED: 09/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/511,931

Applicant(s)

SUGAWARA ET AL. *MS*

Examiner

Stephen M. Baker

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No.6,223,321 to Nasu *et al.* ("Nasu").

As shown by the format of data, C1 and C2 coding in Fig. 4 of Nasu, C1 correction is performed for bytes of individual rows, and thus C1 correction occurs in "units of one block", where a row is a "block" and a byte is the "unit". C2 correction is performed in bytes of individual columns, which span all rows, and thus C2 correction occurs in "units of a plurality of blocks", as vaguely stated by the claim. C2 correction is performed by the host computer (see column 8, lines 16-30).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,252,961 to Hogan ("Hogan").

Hogan discloses a computer DVD system where DVD data error correction is performed at least partly by the host. The drive controller may also perform error correction on-the-fly.

Regarding claim 1, Hogan doesn't specify that the drive's on-the-fly ECC process be performed one block at a time while the host's ECC process be performed over multiple blocks at a time. Official notice is taken that it was well known in disk ECC to encode a higher level of ECC over multiple units of a lower level of ECC. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement Hogan's DVD drive system such that the drive's on-the-fly ECC process is performed one block at a time while the host's ECC process is performed over multiple blocks at a time. Such an implementation would have been obvious because it was well known in disk ECC to encode a higher level of ECC over multiple units of a lower level of ECC.

Regarding claim 2, Official notice is taken that the desirability of providing disk drives with the capacity to be compatible with a variety of disk formats and distinguish

Art Unit: 2133

between the variety of disk formats was well known at the time the invention was made. A CD-ROM provides a "high-reliability disk" with an extra level of ECC compared to a CD. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement Hogan's computer DVD system with a disk drive that can distinguish between DVDs, CD-ROMs and CDs and process their ECCs appropriately. Such an implementation would have been obvious because the desirability of providing disk drives with the capacity to be compatible with a variety of disk formats and distinguish between the variety of disk formats was well known.

Regarding claim 3, Official notice is taken that the desirability of providing ECC decoding for a variety of disk formats and of distinguishing between the variety of disk formats was well known at the time the invention was made. Official notice is also taken that providing information on a disk to distinguish the disk format was well known at the time the invention was made. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement Hogan's computer DVD system with a disk drive that can distinguish between disk formats by information written to the disk, and that can process their ECCs appropriately. Such an implementation would have been obvious because providing information on a disk to distinguish the disk format was well known, as was the desirability of providing disk drives with the capacity to distinguish between formats and decode formats appropriately.


Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Baker whose telephone number is (703) 305-9681. The examiner can normally be reached on Monday-Friday (11:00 AM - 7:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.



Stephen M. Baker
Primary Examiner
Art Unit 2133

smb
September 15, 2002